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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/629,219	07/31/2000	Lior Shabtay	3-7	3977

7590 11/22/2005

JOSEPH B. RYAN  
RYAN ,MASON & LEWIS, LLP  
90 FOREST AVENUE  
LOCUST VALLEY, NY 11560

EXAMINER

MILLS, DONALD L

ART UNIT PAPER NUMBER

2662

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

09/629,219

Applicant(s)

SHABTAY ET AL.

Examiner

Donald L. Mills

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**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 10 November 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☒ The Notice of Appeal was filed on 10 November 2005. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 1-17, 26-43 and 45-48.


Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

  
**JOHN PEZZLO**  
**PRIMARY EXAMINER**

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Applicant's arguments filed November 10, 2005 are not persuasive.

### Rejection Under 35 USC § 102

On page 2 of the remarks, regarding claim 14, the Applicant argues Gleeson does not disclose *routing the multicast packet in layer-3 out a second physical port of the switch, on the first VLAN*. The Examiner respectfully disagrees. Gleeson discloses, referring to Figure 2A, the multicast packet is routed out port 3 in layer-3 on the VLAN (See column 12, lines 25-27.) As stated in column 12, lines 26-27, the entity supports multicast messaging at the network protocol layer, which by definition is layer-3. Therefore, Gleeson discloses *routing the multicast packet in layer-3 out a second physical port of the switch, on the first VLAN*.

On page 3 of the remarks, regarding claim 14, the Applicant argues Gleeson does not disclose *wherein the multicast packet is bridged in layer-2 through a third physical port of the layer-3 switch*. The Examiner respectfully disagrees, as seen in Figure 2A, the multicast packet is bridged in layer-2 via switch 221 through port 2 to the layer-3 router 226 utilizing the MAC address which corresponds to layer-2 switching (See column 8, lines 27-29.) Therefore, Gleeson discloses *wherein the multicast packet is bridged in layer-2 through a third physical port of the layer-3 switch*.

On page 3 of the remarks, regarding claim 26, the Applicant argues Gleeson does not disclose *a layer-2 bridging unit which bridges packets between the ports responsive to their destination MAC address and their VLAN*. The Examiner respectfully disagrees. Gleeson discloses, referring to Figures 2A and 6, switch 221 bridges packets between ports based upon their destination MAC address and their VLAN identifier, utilizing the MAC address which corresponds to layer-2 switching (See column 18, lines 53-64.) Therefore, Gleeson discloses *a*

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*layer-2 bridging unit which bridges packets between the ports responsive to their destination MAC address and their VLAN.* Applicant further argues, with respect to claim 26, Gleeson does not disclose *a multicast detector which identifies a group of at least some of the IP multicast routing related packets received by the switch, the group including IGMP queries, and prevents the layer-2 bridging unit from bridging the identified packets at least through ports which do not lead to at least one neighboring layer-3 switch or router.* The Examiner respectfully disagrees. Gleeson discloses, referring to Figure 2A, switch 221 detects multicast packets, including IGMP queries, and forwards them to corresponding MND 226 and not to ports that are not connected to MND 226, such as, ports 1, 4, and 5. See column 9, lines 46-50. Therefore, switch 221 prevents IGMP queries from transmission through ports 1, 4, and 5, which does not lead to a neighboring router. Therefore, Gleeson discloses *a multicast detector which identifies a group of at least some of the IP multicast routing related packets received by the switch, the group including IGMP queries, and prevents the layer-2 bridging unit from bridging the identified packets at least through ports which do not lead to at least one neighboring layer-3 switch or router.* The Examiner notes that multicast controller 306 is separate from the intermediate device 221; however, the multicast controller 306 is not utilized in the rejection of claim 26 and therefore is moot.

On page 3 of the remarks, regarding claim 38, the Applicant argues Gleeson does not disclose *wherein the layer-3 output unit directs packets through the at least one VLAN interface, with an IP source address associated with a different VLAN interface of the switch.* The Examiner respectfully disagrees. Gleeson discloses, referring to Figure 2A, the MND 226 is a type of layer-3 switch, as clarified above, that directs packets to either the R, G, or B VLAN

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interfaces. The MND 226 does not have an associated IP router interface. The distribution of messages also uses the MAC address derived from the IP destination address. The router forwards multicast IP packets with a source address corresponding to host 33 through port 1 (See col. 12, lines 36-44.) Therefore, Gleeson discloses *wherein the layer-3 output unit directs packets through the at least one VLAN interface, with an IP source address associated with a different VLAN interface of the switch.*

## Rejection Under 35 USC § 103

On page 4 of the remarks, regarding claim 1, the Applicant argues neither Gleeson nor Virgile disclose, teach, or otherwise make obvious *creating a layer-3 multicasting routing table, which relates to each of the segments separately.* The Examiner respectfully disagrees. Virgile teaches a table 200 as shown in Figure 4 for multicasting IP packets (layer-3 multicasting routing table). The multicast destination address index field contains a multicast destination address of a particular multicast group with a corresponding I/O interface identifier in the I/O interface field (See column 7, lines 50-60.) As seen in Figure 3, each I/O interface 141-144 corresponds to one of three distinct and separate network segments L100-102 for receiving and transmitting packets according to the protocol network segment to which the I/O interface is attached (See column 7, lines 10-13.) Therefore, Virgile teaches a multicasting routing table which relates to each of the network segments separately based upon the network segment's matching I/O interface.

On page 5 of the remarks, regarding claim 1, the Applicant argues that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of

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ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the multicasting table of the LAN segments of Virgile in the intermediate devices of Gleeson. One of ordinary skill in the art would have been motivated to do so in order to only transmits on network segments on routes to hosts that are members of the corresponding multicast groups, thereby, reducing traffic flow and bandwidth as taught by Gleeson (See column 5, lines 27-40.)

On page 6 of the remarks, regarding claim 45, the Applicant argues Gleeson does not teach *forwarding the packet with the changed MAC address but with the same TTL value*. The Examiner respectfully disagrees. Gleeson teaches the switch may, but doesn't have to, decrement the TTL value indicating that the switch may not participate or disable decrementing the TTL value that would result in maintaining the same value at a non-participating node (See column 13, lines 52-62.) It would have been obvious to one of ordinary skill in the art at the time was made to implement packet forwarding with same TTL value in the system of Gleeson. One of ordinary skill in the art would have been motivated to do so in order to implement a router with a greater effective hop count limit to increase the effective propagation range of a datagram for communication with distant devices.